

# CALIFORNIA OCCUPATIONAL GUIDES



## HIGHWAY MAINTENANCE WORKERS



### WHAT DOES A HIGHWAY MAINTENANCE WORKER DO?

HIGHWAY MAINTENANCE WORKERS work for public works departments in city, county, and State government, most notably for the California Department of Transportation (CALTRANS). They maintain the many miles of roads, highways, and freeways in the State.

Maintenance Workers do the manual labor associated with road upkeep. They fill potholes or broken places in roadways. They clean and clear culverts, ditches, and other drain structures of debris, maintain road shoulders and berms, and help in removal of slides from roadways. Typical miscellaneous tasks include traffic control, litter pickup, minor tree trimming, and maintenance of roadside rest areas. Some Maintenance Workers do rodent control and landscaping. They scatter poison grain

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2005

INTEREST AREA  
REALISTIC



and put poison in rodent burrows. They clear weeds and brush from areas such as rights-of-way and roadside shoulders and may apply weed killers.

Highway Maintenance Workers perform the following tasks:

- Apply oil to road surfaces, using sprayers.
- Erect, install, or repair guardrails, road shoulders, berms, highway markers, warning signals, highway lighting, and roadside signs, using hand tools and power tools.
- Haul and spread sand, gravel, and clay to fill washouts and repair road shoulders.
- Dump, spread, and tamp asphalt, using rollers and sometimes pneumatic tampers to patch broken pavement.
- Measure and mark locations for installation of markers, using tape, string, or chalk.
- Drive trucks or tractors with adjustable attachments to sweep debris from paved surfaces, mow grass and weeds, and remove snow and ice.
- Set signs and cones around work area to divert traffic.
- Blend compounds to form adhesive mixture.
- Inspect markers to verify accurate installation.
- Paint traffic control lines and place pavement traffic messages, by hand or using machines.
- Drive truck to transport crew and equipment to work site.

### WHAT SKILLS ARE IMPORTANT?

Important skills, knowledge, and abilities for Highway Maintenance Workers include:

- Repairing – Repairing machines or systems using the needed tools.
- Equipment Selection – Determining the kind of tools and equipment needed to do a job.

- Operation and Control – Controlling operations of equipment or systems.
- Installation – Installing equipment, machines, wiring, or programs to meet specifications.
- Building and Construction – Knowledge of materials, methods, and the tools involved in the construction or repair of houses, buildings, or other structures such as highways and roads.
- Public Safety and Security – Knowledge of relevant equipment, policies, procedures, and strategies to promote effective local, state, or national security operations for the protection of people, data, property, and institutions.
- Employee Safety – Knowledge of OSHA rules and company policies designed to protect employees on the job.
- Trunk Strength – The ability to use your abdominal and lower back muscles to support part of the body repeatedly or continuously over time without ‘giving out’ or fatiguing.
- Multilimb Coordination – The ability to coordinate two or more limbs (for example, two arms, two legs, or one leg and one arm) while sitting, standing, or lying down. It does not involve performing the activities while the whole body is in motion.
- Spatial Orientation – The ability to know your location in relation to the environment or to know where other objects are in relation to you.

## WHAT'S THE WORK ENVIRONMENT?

Highway Maintenance Workers can expect to be outside most of the day in all kinds of weather including extreme heat, cold, wind, rain, sleet, and snow. The work is physically demanding and requires stamina, agility, and strength. The workers are subject to sunburn, poison oak, and snake and insect bites. In addition, the job is hazardous because it is performed at the side of the road or in the roadway itself, where workers are exposed to vehicular traffic. There is also the possibility of injury by working with and around heavy equipment. Workers may be required to work in emergency situations caused by storms or floods.

Employment is contingent upon passing a pre-employment physical and drug test.

## Union Membership

Most Highway Maintenance Workers who hold union membership are members of the International Union of Operating Engineers (IUOE), Local 3 (Bargaining Unit 12 in State service).

## WHAT'S THE CALIFORNIA JOB OUTLOOK?

The following information is from the occupational projections produced by the Employment Development Department (EDD) Labor Market Information Division (LMID):

Highway Maintenance Workers	
Estimated number of workers in 2002:	4,400
Estimated number of workers in 2012:	5,400
Projected Growth 2002-2012:	22.7%
Est. openings due to separations by 2012:	600
<i>These figures do not include self-employment.</i>	

The occupation of Highway Maintenance Workers will grow faster than average compared with all occupations in California, but even so, it is predicted that there will be 1,600 job opportunities in this occupation during the projections period.

Because this is an entry-level position and has relatively few entrance requirements, there is a large surplus of qualified applicants for the job.

## WHAT DOES THE JOB PAY?

### California Earnings

The following information is from the Occupational Employment Statistics Survey of Employers by EDD/LMID.

#### Highway Maintenance Workers 2005 Wages

Hourly wages range from	\$15.70	to	\$23.20
Average hourly wage			\$20.04
Average annual wage			\$41,683
<i>These figures do not include self-employment.</i>			

Maintenance Workers start in State employment at \$2,685 and advance through salary steps to \$2,915 monthly.

**Hours**

The standard workweek is a 40-hour, five-day period. However, some workers may be called on to work rotating or irregular shifts, including weekends, nights, and overtime for snow removal or other emergency work.

**Benefits**

Benefits include vacations, holidays and sick leave, health benefits, and membership in a retirement system.

**HOW DO I PREPARE FOR THE JOB?*****Education and Training***

A high school diploma, while desirable, is not required for this job, but completion of the eighth grade and some experience in the construction or maintenance field improves one's chances of employment. The experience requirement may be for as short as six months or up to one year. A good driving record and a valid California driver's license are a must.

***Licensing and Certification***

No licensing or certification is needed for this occupation, except for a Class C California driver's license. Possession of a Class A driver's license is desirable.

***Continuing Education***

No continuing education is necessary for this job.

**HOW DO I FIND THE JOB?**

Direct contact remains one of the most effective job search methods. Most Highway Maintenance Workers are employed in the state and local government industries.

Applicants should apply to the California Transportation Department (CALTRANS) and city and county civil service offices. Employers will list this job usually as laborer with the exception of CALTRANS, which uses the title of Highway

Maintenance Worker. For CALTRANS jobs, application should be made at a district office. There are 11 districts scattered throughout the State.

Search these **yellow page** headings for listings of private firms:

- Excavating Contractors
- Labor Contractors
- Landscape Contractors
- Parking & Highway Improvement Contractors

The following Internet resources can be helpful to the job search process:

America's Career InfoNet  
[www.acinet.org](http://www.acinet.org)

America's Job Bank  
[www.ajb.dni.us](http://www.ajb.dni.us)

CalJOBS<sup>SM</sup>  
[www.caljobs.ca.gov](http://www.caljobs.ca.gov)

Job Search and Resume Writing  
[www.worksmart.ca.gov/success\\_tips\\_menu.html](http://www.worksmart.ca.gov/success_tips_menu.html)

Local Job Service Offices  
[www.edd.ca.gov/jsrep/jsloc.htm](http://www.edd.ca.gov/jsrep/jsloc.htm)

Occupational Information Network (O\*NET) Online  
<http://online.onetcenter.org>

One-Stop Career Centers List  
[www.edd.ca.gov/ONE-STOP/pic.htm](http://www.edd.ca.gov/ONE-STOP/pic.htm)

For statewide and local projections, wages, employers by county, and other occupational information go to [www.labormarketinfo.edd.ca.gov](http://www.labormarketinfo.edd.ca.gov) and select *Find an Occupation Profile*.

**WHERE CAN THE JOB LEAD?**

The job of Highway Maintenance Worker is the entry level in the construction or maintenance occupational series in public works departments.

As workers gain skills on the job, they may advance to truck driver positions or heavy equipment operator jobs. A skilled worker may also be promoted to lead worker and be responsible for a crew of laborers.

Because these jobs are all in government, promotion is dependent upon meeting civil service requirements.

#### **OTHER SOURCES OF INFORMATION**

California State Department of Transportation  
1120 N Street  
P.O. Box 942873  
Sacramento, CA 94273-0001  
(916) 654-5266  
[www.dot.ca.gov](http://www.dot.ca.gov)

International Union of Operating Engineers  
Local 3 Headquarters  
1620 South Loop Road  
Alameda, CA 94502  
(510) 748-7400  
[www.oe3.org](http://www.oe3.org)

#### **RELATED OCCUPATIONAL GUIDES**

Truck Drivers, Heavy	No. 255
Gardeners and Groundskeepers	No. 320

#### **OCCUPATIONAL CODE REFERENCES**

**SOC** (*Standard Occupational Classification*)  
Highway Maintenance Workers 47-4051

**O\*NET** (*Occupational Information Network*)  
Highway Maintenance Workers 47-4051.00

**OES** (*Occupational Employment Statistics*)  
Highway Maintenance Workers 87711